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Circular Letters:

Acute Benign Pericarditis

Despite numerous clinical reports in the current literature, acute benign pericarditis continues to be mistaken for more serious cardiac diseases, especially acute myocardial infarction. The former generally affects persons of a younger age group and is relatively benign, with complete absence of sequelae after recovery. The tagging of these persons with a diagnosis of coronary heart disease is detrimental, not only to their future employment and insurability but also to the psyche. Aureomycin and/or terramycin therapy is apparently beneficial.

Pain, precordial or substernal, with an abrupt onset, occurring in a person of the precoronary age group, should suggest benign pericarditis. This is especially true if there is a history of an antecedent respiratory infection, an abnormal temperature, sweating, weakness and extreme anxiety accompanying the onset of pain. The significant diagnostic hint that enables clinical diagnosis at the bedside is the exacerbation of pain on deep breathing. It is present at the outset, and this symptom means acute pericarditis or acute pleuropericarditis, not acute myocardial infarction. When it occurs in the latter condition, it is usually a later manifestation and is probably due to an extension of the infarct into the pericardium.

There is little in the type of pain in acute benign pericarditis to differentiate it from acute myocardial infarction. There is similarity in location, intensity and radiation. The pain may be substernal but usually is localized immediately to the left of the sternum and may radiate to the left shoulder, arm, neck, left scapular region and the epigastrium. The discomfort in the epigastrium is described as a feeling of "fullness" and is often mistaken for "acute indigestion." Abdominal pain radiation may be erroneously diagnosed, for the thoracic origin of the pain may be entirely overlooked. The pain may be intermittent at the onset but usually becomes continuous and is of such intensity that use of narcotics is required for relief. The patient describes the pain as "severe, knifelike, stabbing, crushing, squeezing, sharp or dull" and often refers to it as a "tight, heavy weightlike" sensation. This description of pain is similar in cases of myocardial infarction. However, in the latter, there is not the intensification of the pain by deep inspiration, by movement of the thorax or by cough, as characteristically occurs in pericarditis.

Shallow and rapid respirations are an early and prominent symptom in cases of pericarditis. The patient is generally unable to breathe in the recumbent position, and the dyspnea may be due, at least to some extent, to mechanical compression of the lungs and bronchi. Increased movement of the wall of the chest intensifies the pain, so the shallow respiratory movements are undoubtedly the result of voluntary splinting of the chest. The patient voluntarily assumes a sitting or a forward or lateral leaning position in an effort to obtain partial pain relief. He often attempts manual splinting of the left side of the thorax, as in acute pleurisy, but in pericarditis this provides little, if any relief. These signs are not characteristically associated with acute myocardial infarction.

A pericardial friction rub is the final clinical sign which makes possible the bedside diagnosis of acute benign pericarditis. It is heard early in the illness and may be audible for short time only, but occasionally it may be observed for a long time. The friction rub is usually well localized, either in the pulmonic area or immediately to the left of the lower part of the sternum. It is easily missed if not carefully searched for. While it is diagnostic, the fact that a friction rub is not heard does not rule out pericarditis.

Roentgenologic examination of the chest frequently shows an increase in the size of the cardiac silhouette, with the exact cause an unsettled question. Profound shock, as seen in some cases of acute myocardial infarction, was not observed in this series. A "shocklike syndrome," manifested by anxiety, ashy cyanosis, sweating, weakness, lowered blood pressure, bradycardia, nausea and vomiting, was present at the onset in some degree in all the patients. Apparently the syndrome was due to mass excitation of visceromotor and vasomotor reflexes, induced by anxiety and severe pain. It was promptly relieved by the parenteral administration of 1/4 grain (15 mg.) of morphine sulfate and 1/100 grain (0.6 mg.) of atropine sulfate. An elevation of temperature, an increase in the leukocyte count and an acceleration of the sedimentation rate occur with, or shortly after, the onset of pain. These abnormal changes do not occur early in myocardial infarction.

In this series the temperature varied from 100° to 103° F. and returned to normal by lysis. The leukocyte count varied from 10,000 to 23,000 per cubic millimeter, with polymorphonuclear percentages ranging from 74 to 91. The sedimentation rate was accelerated early in the patients observed and was the last value to return to normal after recovery.

Serial electrocardiograms, in correlation with the clinical picture, are of utmost value in attaining the highest degree of accuracy in differential diagnosis. The diagnosis of acute benign pericarditis can be made from the limb lead tracings; unipolar and multiple precordial leads are of value in excluding myocardial infarction. In recordings of precordial and unipolar leads pattern alterations similar to those seen in the limb may occur. It has been demonstrated that the electrocardiographic manifestations are due to "subepicardial myocarditis".

The abrupt onset of pain in the anterior portion of the chest was present in 100 percent of patients in this series, and this symptom was observed consistently in patients seen in the military service. The sudden onset of acute pain in the chest, with the inability to breathe normally, naturally creates panic in both the patient and the physician. The apprehension is generally abated after the patient is given assurance that the pain is not due to any serious cardiac disease.

Since both the cardiovascular and gastrointestinal systems are innervated by the parasympathetic and sympathetic nervous systems, pain reflexes in one system may occur from disease in the other. Patients with pericarditis frequently complain of epigastric discomfort, and in case 3 the patient was referred to the hospital with the diagnosis of "acute cholecystitis."

At the time that this paper was prepared, á 29 year old man was admitted to the hospital because of substernal pain, with radiation into both arms and through to the back. The characteristic symptom, exacerbation of pain on deep inspiration, and the vital diagnostic sign, inability to breathe in the horizontal posture, were not present. Serial electrocardiograms showed the diagnostic pattern of acute anterior myocardial infarction. (A. M. A. Arch. Int. Med., June '51, O. F. Rosenow & C. J. Cross)

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Surgical Treatment of Pulmonary Stenosis with Intact Interventricular Septum

Stenosis of the pulmonary valve is the only abnormality of note in a small but significant number of patients with cyanosis due to congenital heart disease. The pathologic process in such patients differs from that seen in typical tetralogy of Fallot in that the interventricular septum is intact and consequently there can be no overriding of the aorta. Instead of stenosis in the infundibular region as usually seen in the tetralogy of Fallot, stenosis in these cases is caused by fusion of the cusps of the pulmonary valve. The degree of this fusion, varying from negligible to complete, determines the severity of the symptoms.

Immediately distal to the stenosis marked dilatation of the pulmonary artery is usually seen. It is mysterious that poststenotic dilatation of the pulmonary artery is practically always present although pressure in the pulmonary artery is low. In fact, patients with the severest pulmonary stenosis, and consequently the lowest intrapulmonary pressure, are apt to have the most pronounced dilatation of the pulmonary artery.

The only other commonly associated lesion often seen in these hearts is a patent foramen ovale which serves as an escape valve into the left auricle for blood dammed back in the right auricle. The size of this shunt from right to left determines the degree of cyanosis.

Because the only significant lesion is in the pulmonary valve, this type of congenital heart disease is conveniently referred to for the sake of brevity as "pure pulmonary stenosis" and will be so designated in this paper.

Clinical differentiation of patients with pulmonary stenosis and an intact interventricular septum from those with an interventricular defect requires the utmost in diagnostic acumen and frequently necessitates the use of angiocardiograms and cardiac catheterization. The diagnostic features of pure pulmonary stenosis have been described as follows by Gibson et al.:

"The symptoms and signs vary considerably from those encountered in the tetralogy of Fallot and tricuspid atresia. There may be dyspnea and marked decrease of exercise tolerance with relatively little cyanosis. The heart is enlarged. There is usually a systolic murmur, often accompanied with a thrill at the base of the heart. Pulsation of the liver is frequently present. The fluoroscopic and roentgenographic examinations reveal enlargement of the right ventricle. The lung fields are clear. Inasmuch as poststenotic dilatation of the

pulmonary artery is usually present, the pulmonary artery segment is usually prominent. The electrocardiogram shows right ventricular hypertrophy with high, sharp P waves in lead 2. Cardiac catheterization reveals much increased pressure in the right ventricle with abnormally low pressure in the pulmonary artery. The angiocardiogram fails to show an overriding of the aorta. The dye remains abnormally long in the right ventricle."

The surgical treatment of pure pulmonary stenosis differs from that of the tetralogy of Fallot. In the latter satisfactory results are obtained by shunt operations between the subclavian and the pulmonary artery or the aorta and the pulmonary artery. However, in patients with valvular stenosis a shunt operation is apt to lead to excessive strain on the right side of the heart. Cyanosis may be relieved, but the shunt carries more blood to the lungs and thereby raises the pressure in the left auricle. Less blood can therefore escape from the distended right auricle through the patent foramen ovale, and right heart failure follows. The only reasonable operative approach in these patients therefore constitutes a direct attack on the stenotic valve itself, as first accomplished by Sellors and Brock. During the past 10 months a total of 13 patients with pure pulmonary stenosis have been operated on. Their ages were as follows: 23, 39 and 60 days; 10, 12, 13, 15 and 20 months and 2, 6, 10, 15 and 17 years. The average preoperative red blood count was 6,300,000 per cubic millimeter, approximately 1 million less than the average red blood cell count of patients with tetralogy of Fallot. With 1 exception cyanosis was visible in all patients. All but 3 of the patients had enlargement of the liver. Definite and unquestioned pulsation of the liver was found in only 1 of these patients.

Cardiac enlargement varied from slight to tremendous. Considerable enlargement of the heart, especially the right ventricle, however, is rather typical of pure pulmonary stenosis. All patients had a systolic murmur, the harshness of the murmur being inversely proportional to the severity of the patient's condition. Cardiac catheterizations, when done, uniformly showed high right ventricular pressure and low pulmonary pressure. Angiocardiograms were not routinely done. A number of patients were in such precarious condition that the procedure did not seem justifiable. While it is reassuring to see in the roentgenograms an intact interventricular septum and slow emptying of the right ventricle, one must not trust the fleeting shadows of these roentgenograms too implicitly.

Valvulotomy is a logical and relatively simple procedure for the relief of pure pulmonary stenosis. The operation requires about an hour, and most of that time is spent in opening and closing the chest. An expanding valvulotome and a dilator were developed for this operation. In the 13 patients, there was 1 death. Results have been excellent in 11 patients and fair in 1. (A. M. A. Arch. Surg., June '51, W. J. Potts & W. L. Riker)

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Surital Sodium. A New Intravenous Anesthetic Agent

Intravenous anesthesia has become increasingly popular and widespread during the past decade. This report is a clinical evaluation of a new agent,

surital sodium, which appears to possess certain definite advantages over those presently employed.

Surital sodium is an ultra-short-acting thio-barbiturate. It is the sodium salt of 5-allyl-5-(1 methylbutyl-2-thiobarbituric acid), $C_{12}H_{17}O_2N_2SNA$.

A 2 to 5 percent solution is clear, light yellow in color and has a pH of 10 to 10.5. The dry sodium salt supplied in sealed ampules mixed with a small amount of sodium carbonate as a buffer is readily soluble in water to form a stable solution for parenteral use. The pH of the buffered surital sodium 2 percent solution remains unchanged for about 5 hours whether kept at room or icebox temperature.

Certain pharmacologic facts concerning surital sodium are worthy of note. Wyngaarden, Woods, Ridley and Seevers found this agent on an equimolar basis to be approximately one and one half times more potent than pentothal sodium. Thus a smaller amount of surital was required to produce an anesthesia of equal depth and duration. In like manner Woods, Wyngaarden, Rennick and Seevers found less cardiotoxicity with surital sodium, and in dogs the increased duration of anesthesia following repeated doses of surital sodium occurred less rapidly than with pentothal sodium. The site of detoxication for either agent is mainly in the liver.

Methods. After the first 2 weeks of this study, during which preliminary trials were conducted, surital sodium was used in every patient requiring intravenous anesthesia. Patients ranged in age from 6 to 87 years and included all types of operative and anesthetic risks.

In those patients in whom surital sodium was used in conjunction with other agents, either for induction or as a supplement, the same procedure was followed as is routine on the author's service for pentothal sodium. In like manner intranasal oxygen and/or fluids were administered as indicated.

Premedication schedules followed were the same as those used with pentothal sodium. The choice of premedication was dictated by the age and medical status of the patients. Atropine, scopolamine, demerol and short-acting barbiturates were employed either alone or in combination.

Because of the increased potency of surital sodium over pentothal sodium a 2 percent solution was employed rather than the 2 1/2 percent as is common with the latter agent. Solutions were made up prior to use by addition of distilled water to the dry powder.

Administration. The intermittent injection technic of a 2 percent solution was utilized in most instances, but surital sodium may be administered continuously in a more dilute solution. The rate of injection of a 2 percent solution of surital sodium is slightly less than that of a 2 1/2 percent solution of pentothal sodium. A safe rate in most instances during induction is 1 or 2 cc. at a time until unconsciousness occurs; thereafter from 1 to 5 cc. are administered intermittently to maintain anesthesia at the desired level. The dose is determined entirely by the effect produced. The rate and depth of respiration, reflex movements and the required relaxation are the principle criteria used for further injections. More rapid injections may induce apnea whereas a slower rate may necessitate the use of a greater amount.

In this series of 700 patients surital sodium produced less respiratory depression, and less hypersensitivity of the laryngeal and pharyngeal reflexes than pentothal sodium. Recovery from surital sodium is more rapid than from pentothal sodium, in all probability because of the greater potency of surital sodium, less being required to maintain a given depth of anesthesia. No untoward effects on blood pressure or respiration were noted. No deaths occurred which can be attributed to the use of surital sodium. It is concluded that surital sodium is a safe and effective agent for intravenous anesthesia.

Addendum. This series now exceeds 4,700 cases. The only noteworthy change in technic is the administration of decamethonium bromide (syncurine) in place of d-tubo curarine. Syncurine has been used in over 300 cases without serious untoward reactions. This combination of intravenous agents appears especially efficacious in endoscopic procedures. (Am. J. Surg., June '51, P. C. Lund)

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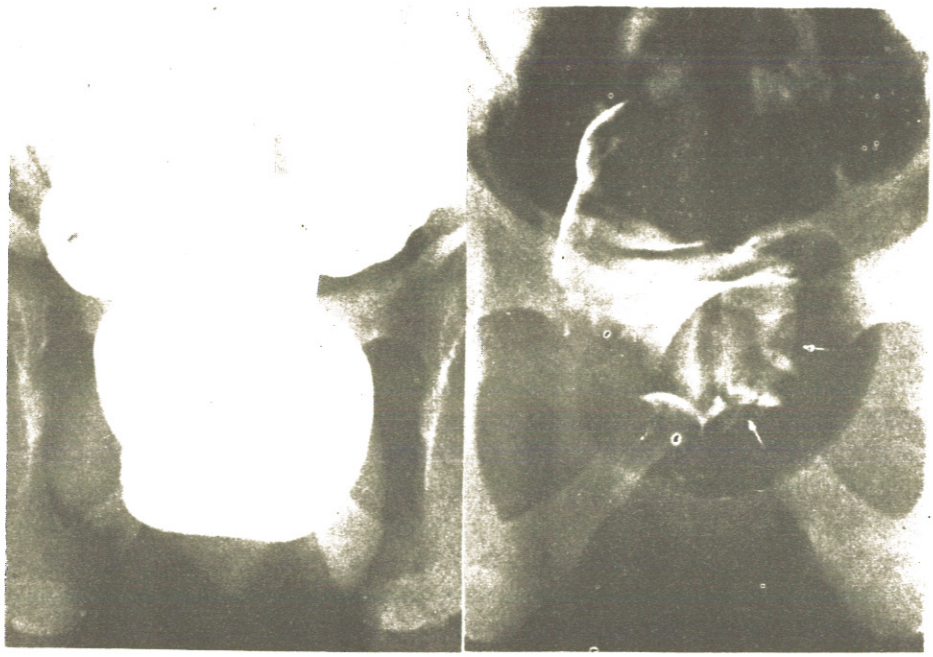
The Inadequacy of Routine Barium Enema for the Roentgenologic Examination of the Rectum

The roentgenologist is frequently the first consultant called upon to determine or confirm the presence of a rectal lesion. While the rectum is the most accessible part of the alimentary tract, it is the most neglected in roentgenological examination. It is a serious condemnation of roentgenological procedure when carcinoma of the rectum is not recognized until it has produced obstructive symptoms. It is hardly surprising, therefore, to find in the literature such statements as, "Caudad to the mid-sigmoid, not only are they (x-ray studies) of limited value but they are often misleading". Again, "For lesions of the rectum itself, x-ray examination is of very little value".

The large amount of barium suspension introduced into the rectum by the usual barium enema will, in itself, obscure a lesion of considerable size. Moreover, superimposition of the barium-filled sigmoid may also mask a tumor of the rectum. Obviously, one useful expedient is to take films before and after evacuation of an enema in the lateral, as well as in the usual postero-anterior position, a procedure which, unfortunately, is too rarely employed. Not infrequently, the lateral film will show a lesion of the rectum that cannot be visualized on the postero-anterior films.

Lateral films of the colon and rectum before and after evacuation of a barium enema are also extremely useful in detecting the presence and extent of disease in the pelvis. The rectum and sigmoid rise up out of the pelvis and lie close to the sacrum and spine when they are distended with barium suspension or with air, and these loops fall away from the spine when they are emptied. Failure of these segments to move is an indication of disease. Thus, the rectum and sigmoid may be fixed because of a carcinoma which has broken through the bowel and invaded the pelvis; or they may be fixed by adhesions resulting from previous surgery, or diverticulitis, or they may be immobilized

by a mass arising in the anterior pelvis or the presacral region. A study of the clinical significance of benign pelvic adhesions is being made by the authors. This condition is most often "shrugged off" as an inevitable consequence of pelvic surgery or pelvic inflammatory disease, and usually given no further consideration. They are becoming more and more impressed with the importance of adhesions in producing significantly disturbing clinical symptoms.



A B

FIG. 11

Fig 11. A: Film taken after routine barium enema. No lesion of the rectum is demonstrated

B: Film of same patient taken after examination by "spray" technic, shows a large cauliflower mass (arrows) which occupied three-fifths of the rectal circumference. The uninvolved rectal wall is outlined by gas.

For a more detailed study of the rectum, or for the demonstration of pathologic changes which, though macroscopically minute, may be very important to the patient, routine barium enema is totally inadequate. For study the authors have devised a new technic, which consists of spraying a thin mist of barium-water suspension on the mucosa of the rectum and sigmoid. The interior of these structures is rendered visible in their true physiologic state. There is no undue distention and the mucosa is not flattened out or obscured by a large mass of barium.

Internal hemorrhoids not infrequently escape detection by the examining finger or the anoscope since they may readily be compressed when the examining finger or anoscope is introduced. With the authors' technic of examining the lower bowel, spraying is continued until the tip of the spraying apparatus is entirely withdrawn. In this manner, the anal canal is rendered visible. In the presence of hemorrhoids, the mucosal folds are widened, distorted and displaced, simulating the appearance of varices of the esophagus.

Stercoral ulcerations are most likely to escape detection by routine barium enema and when located on the superior surface of a valve, they may be overlooked on proctoscopic examination.

Double-contrast enemas are usually employed in an effort to demonstrate polyps, but it is, at times, very difficult to differentiate a polyp from an air-bubble or other artefact. In 1 case, a routine barium enema and double-contrast enema failed to disclose a recognizable lesion of the rectum. A "spray" examination showed a polyp on the left wall of the lower rectal ampulla. The examination was repeated 1 week later and an almost identical demonstration of the polyp was obtained.

Experience has shown that a routine barium enema does not lend itself to the detection of small rectal lesions and it is often equally disappointing in its failure to demonstrate large tumors of the rectum. In the figure on Page 8 is shown the rectum of a patient examined with a routine barium enema, and the same case after examination with the "spray" technic. The latter reveals a mass occupying three fifths of the circumference of the rectum.

A "negative" report after examination of the rectum with a routine barium enema is not conclusive; it may, in fact, be misleading. The practice of taking films after administering a barium enema without fluoroscopic control must be thoroughly condemned. It is well known that 65 percent of the cancers of the large intestine are found in the rectum - a fact which imposes a grave responsibility on the roentgenologist who submits a "negative" report in a case of rectal bleeding. It is hoped that sufficient interest may be aroused to stimulate development of newer and better methods of roentgenologic examination. Am. J. Digest. Dis., June '51, G. Levene & Lt. Col.N. C. Veale, MC, USA)

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Aureomycin Therapy in Peritonitis

Aureomycin has proved to be the most effective agent ever used at Harlem Hospital for the therapy of peritonitis. Its addition to the basic preoperative and postoperative routine has significantly altered the mortality expectancy to the point where death from uncontrolled peritonitis in acute surgical emergencies has been reduced to negligible proportions. Aureomycin has been used as the sole antibiotic in the treatment of 235 consecutive, unselected cases of peritonitis from all causes, with 22 deaths, of which 7 can be considered due to a failure of the antibiotic. The over-all mortality rate was 9.36 percent and

the antibiotic mortality rate was 3.18 percent.

The mortality rate has been more than halved, and peritonitis is now rarely the prime cause of death. Extra-abdominal complications have become the limiting factor in almost complete elimination of fatalities in surgical emergencies. In the appendical group, several deaths included under antibiotic mortality might have legitimately been attributed to the surgical group, but lack of proof by postmortem studies or possibly insufficient clinical evidence required listing under antibiotic failures.

In children, under the age of 12, peritonitis from a perforated appendix is rapidly brought under control with the use of aureomycin. There were no deaths in this series while in the 2 previous years used for comparison, uncontrolled peritonitis took 3 lives. In the current report, the ages varied from 3 1/2 to 10 years. Response to the drug was excellent in all. Dosage paralleled that of the adults with 300 to 500 mg. given intravenously twice daily, the dose depending upon the age and the weight of the child. There were several intra-abdominal complications, controlled by the continued oral use of aureomycin. It has been demonstrated in cases of experimental intestinal obstruction that the bowel wall becomes permeable to bacteria and toxins without gross evidence of perforation of the bowel, and it was felt that aureomycin should prove effective in controlling this type of peritoneal infection. Obstructions due to intraluminal neoplasms were not included in the group, nor were intussusceptions in children.

In cases of intestinal obstruction, aureomycin apparently did not reduce the mortality rate, although every death was attributable to the general condition of the patient. No antibiotic agent could be expected to alter an extreme physiochemical collapse. It was felt that bacterial invasion of the peritoneum was not a problem in this type of obstruction.

In those cases requiring resection of gangrenous bowel, however, the entire outlook has been altered, with prognosis improved remarkably. The marked reduction in mortality (from 60 to 18.18 percent over-all and from 33.33 to 0 percent in the antibiotic category) demonstrates clearly the elimination of peritonitis as the cause of death, and this would appear to be attributable primarily to the use of aureomycin. Failures can still be anticipated in this group, however. Early surgical intervention and immediate correction of the physiological imbalance resulting from the obstruction are fundamental keys to success, with the antibiotic capable of effectiveness only after such actions. It is clear that resection can be performed with a good margin of safety in these totally unprepared patients with the use of antibiotics, combined with concentration on all the other adjuvant measures required to maintain life.

The bacteriological flora isolated from these cases was generally of a mixed type with fecal organisms predominating. In the case of perforated ulcers usually a pure culture was found and the predominate organisms were streptococci. Most of the flora commonly found consists of organisms sensitive to aureomycin, as shown in this report and by many others. Two outstanding facts that have become evident as a result of this work are: (1) bacterial peritonitis is an important early factor in the case of perforated ulcer with a short preoperative history (6 to 12 hours), (2) the clinical course of the dis-

ease cannot be predicted from the flora present at the time of operation.

In view of the varied flora encountered, it is obvious that a wide range antibiotic, such as aureomycin, should be used in the therapy of peritonitis. Combinations of antibiotics were not used in this study and this early decision to use only one drug has been strengthened by later work. Lankford and Lacy have demonstrated marked in vitro interference effects with mixtures of aureomycin and penicillin and aureomycin and streptomycin. Hunter has shown an antagonism between aureomycin and penicillin in vitro and Almklov and Hansen also imply such antagonisms. Obviously, more work is needed to clarify this important aspect but certainly the implication is that 1 drug alone should be used in vivo until proved otherwise, at least as far as aureomycin is concerned.

The total picture, including in vitro sensitivities, blood and peritoneal fluid levels and clinical results, confirms the dosage schedule used in this study. The results were not altered with the rapid intravenous instillation (5 minutes) of the glycinated form of aureomycin hydrochloride. (The original aureomycin hydrochloride was given by intravenous drip over a period of about 1 hour.)

The incidence of complications was high, with pulmonary problems predominating. Throughout the entire series, the absence of septicemia was notable with negative blood cultures in all cases of persistent fever, including many with proved intra-abdominal or pelvic abscesses. Wound infections occurred frequently and can be attributed to the type of case handled and the use of intraperitoneal drains, part of the standard procedure at this institution in the treatment of peritonitis. It is notable that the systemic administration of the antibiotic was completely incapable of preventing the development of either a wound infection or a fascial slough.

The agent, by either the intravenous or oral route has been nontoxic, with no evidence of liver or renal damage. Aureomycin-glycinate has eliminated the problem of chemical phlebitis, and in cases of peritonitis, nausea and vomiting have never been a concern. (Surg., Gynec., & Obst., June '51, L. T. Wright, H. Schreiber, W. I. Metzger & J. W. Parker)

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Precautions Against Anaesthetic Explosions in Operating Theatres

The Ministry of Health of Great Britain has recently promulgated a revised Memorandum 191(Med.) which sets forth specific precautions to be observed in operating theaters in order to guard against anesthetic explosions. The following brief accounts of recent anesthetic explosions in England illustrate some of the dangers referred to in the memorandum:

1. In the course of an operation for dilation of a cancerous growth of the esophagus with insertion of radium, and while the surgeon was withdrawing a small surgical lamp, an explosion occurred in the patient's mouth and also at the anesthetic apparatus, which burst into flames. The patient subsequently died.

When the surgeon was about to begin the operation, the oxygen stream through the ether bottle on the anesthetic equipment was stopped by means of a tap, the latter being set to deliver chloroform and oxygen only. It was found, however, that a small quantity of ether may have been drawn from the open delivery side of the bottle to join the main current of oxygen and chloroform to the patient.

2. While a portable anesthetic equipment carried on a rubber-tired vehicle was being pushed alongside a similarly tired patient's trolley, an explosion occurred resulting in injuries to the anesthetist and the patient. The air supply to the anesthetic room in which the explosion occurred was treated and delivered by a ventilating plant. Its humidity was very low in consequence of this treatment. It was afterwards found that the insulated trolleys could be readily electrified by sharp movements of blankets, etc. The possibility of electrification of the insulated vehicles has since been obviated by the provision of trolley chains, which have been found effective on a "granolithic" or similar floor.

3. A diathermy operation was in progress for carcinoma of the epiglottis. Anesthesia was induced by chloroform (intratracheal), but during the course of the operation the anesthetist thought it desirable to change to ether. An explosion occurred when the diathermy electrode was within the patient's mouth. Some of those present were injured by flying glass, and the patient subsequently died.

4. During the course of a diathermy operation for the removal of a lung the pleura was accidentally perforated. Cyclopropane was being used as the anesthetic and was ignited. The patient died.

5. An explosion (cyclopropane) occurred during an operation just as the anesthetist was about to use the rebreathing device after administration of curare. The anesthetic equipment was not of modern type and was mounted on a frame carried by non-conducting rubber-tired wheels. By process of exclusion of other possible sources of ignition it was concluded that the carriage with associated metalwork acquired a static charge which caused an incendive spark. Conductive rubber tires to these carriages are desirable and should be standard throughout the theater suite. (Brit. M. J., 9 June '51)

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The Nutritional Requirements in Convalescence

Convalescence is not the termination of the illness, but actually begins during the first day of the acute illness or injury. Thus, adequate nutrition must be instituted immediately. In many instances the nutritional status of the patient is subordinated to the treatment of the specific disease and much attention is paid to probable medical and surgical complications. The patient may be denied adequate nutrients sufficient to prevent the depletion of the food storage leading insidiously to malnutrition. Long before the diagnosis of the specific nutritional deficiency can be made on the basis of clinical evidence the patient may become a poor surgical risk, predisposed to complications, infec-

tions and unable to tolerate additional depletion of energy. Surgeons have long been accustomed to attribute most postoperative weakness to the operative procedures or the injury, not realizing that much of it may be due to starvation, particularly to deprivation of protein. On the wards of any hospital there are encountered many instances of hypoproteinemia, with or without nutritional edema. Indeed, systemic edema which is not due to disease of the heart, liver or kidneys is usually nutritional. Starvation results in death, whether the starvation is induced by famine conditions or by medical incompetency. The depletion of the body and the plasma protein results in asthenia, lack of endurance and loss of weight. If such a condition remains uncorrected then a new set of clinical manifestations may emerge including the edema, lowered resistance to infection and retarded wound healing. The recognition of these nutritional disturbances during acute disease was well known but not fully appreciated until the recent war.

More recent studies have shown that the incidence and duration of the catabolic destruction of the protein is not altogether predictable, varying in different disease conditions and in different phases of the same disease. Brown has suggested that the terms "catabolic phase" be used for that period of the condition in which there is an excessive destruction of nitrogen and "anabolic phase" for that period characterized by the retention of nitrogen. The pre-existing state of nutrition in a patient plays an important role in determining the extent of his catabolic phase. Well nourished patients will have a much larger catabolic response than chronically ill patients who have been nutritionally depleted before the acute incident. Further difficulties in assaying the importance of these various phases occur when there is mechanical loss of protein such as the exudative lesions of burns and the loss of blood in hemorrhage.

In addition to these physiological factors associated with the loss of protein from the body there are the dietary factors. Many of the so-called specific therapeutic diets which are prescribed by the physician in the belief that they would aid in correcting the presenting symptomatology and even restore normal function may, in themselves, provoke these nutritional deficits. A recent study of hospital dietaries in greater New York indicates that most of them are inadequate when compared to even the normal nutritional requirements as set up by the National Research Council accepted standards of food intake. When one superimposes upon the normal requirements the added requirements of the catabolic phase of the disease or injury, then obviously the hospital dietary is inadequate for the purposes of maintaining good nutrition during the acute illness and certainly inadequate for the nutritive rehabilitation required during convalescence. The usual postoperative regimes are hopelessly inadequate from this point of view. The regular diet of the hospital contains on an average 70 Gm. of protein each day. That is, the patient is offered 70 Gm. of protein. The acceptance of the patient however, is quite another matter. The so-called high protein diet in most hospitals contains a maximum of 120 Gm. of protein in the 24 hour allowance. In view of the loss of nitrogen, in the diseased and the injured patient, it is understandable why the regular diet is hardly adequate and the high protein diet, in many cases, is insufficient. The standard postoperative regimes are even more deficient than the regular diets. The peptic ulcer

regimes, the soft diets, bland diets, many of the diabetic diets are all deserving of a good deal of criticism because of their inbalance, particularly their caloric and protein inadequacies.

Protein is an essential constituent of the tissues of the body which cannot be replaced by any other type of food stuff. While it is at times impossible or impracticable to prevent the nitrogen loss during acute episodes, such loss should be reduced to a minimum. In chronic and debilitating conditions the power of the body to anabolize protein, however, seems to be intact. It is essential that the nutritive rehabilitation of these patients be as rapid and as early as possible.

As many believe, the catabolic phase is certainly self-limited, though of unknown duration, and it is almost invariably followed by an anabolic phase. The latter phase should be aided by the administration of a generous diet even before the catabolic phase has been completed. It is an accepted maxim of nutritional therapy that good food by mouth is the most effective way to administer protein. With the use of protein hydrolysates intravenously or by mouth, nitrogen equilibrium can be maintained and the protein requirements of normal animals and humans can be satisfied. They are, however, often quite toxic and provoke nausea, vomiting, and febrile reactions, side effects which are not at all desirable in the debilitated or acutely ill patient. Furthermore, the importance of the caloric intake in relationship to the sparing of the protein or the prevention of some of the protein loss must also be reemphasized.

The caloric intake possible by intravenous administration is, at present, distinctly limited. If one were to take as a figure 2,000 calories for the requirement of the average patient, this would mean the administration of 500 Gm. of glucose or 10 liters of a 5 percent solution. The injection would have to be given slowly over a long period of time to prevent provoking glycosurias. Such volumes of water for ordinary maintenance are indeed excessive and may be deleterious. Increasing the concentration of the glucose merely increases the danger of phlebitis. During certain acute episodes when the use of the gastrointestinal tract is not available for the nutrition of the patient then, of course, parenteral routes remain open but here a compromise must be made with the full nutritional needs. The intravenous administration of 100 Gm. of glucose daily during the period of time in which the patient is unable to take anything by mouth is sufficient to achieve a definite and often pronounced clinical benefit.

When the patient is able to eat and take food by mouth one must recognize the anorexia and the inability or lack of desire of the patient to consume high caloric, high protein diet, with associated mechanical difficulties involved in cutting, chewing and digesting ordinary food.

The proper choice of foods and good nursing care are most important in this phase of the program. When the convalescent patient is able to take fluids freely by mouth then it is necessary to substitute high nutrient fluids for the usual non-nutrient fluids. Water, while a necessary item, to the patient, contains no nutrition. Tea, broth and other non-caloric fluids serve only to satisfy the small appetite the patient has without supplying any of the essential

nutrients. A very good type of liquid mixture to give these patients is milk to which milk powder and other flavoring materials have been added. A good food concentrate for routine use is an egg nog consisting of 1 egg, 8 ounces of milk and 2 ounces of dried milk mixture. A glassful of this mixture will add 50 Gm. of protein to the diet. The response of the patient to an adequate diet is astonishing to one accustomed to the traditional postoperative asthenia and lengthy convalescence of the past. Wound healing is accelerated and the possibility of intercurrent infection is lessened. Instead of several months of disability, patients are now out of bed many times the first postoperative day, walking as soon as their condition permits and out of the hospital and back to work in a minimum of time. (J. Mt. Sinai Hosp., May-June '51, H. Pollack)

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Botulism, a Complication of Clostridium Botulinum Wound Infection

Botulism as a result of the ingestion of the toxin of Clostridium botulinum has been recognized since Van Ermengen established its epidemiology. Although a few cases in which Cl. botulinum was isolated from traumatic wounds have been reported, in none were there symptoms of botulism.

A case of fatal botulism due to Cl. botulinum infection of a relatively minor gunshot wound of the thigh of a 13 year old boy is presented. The patient died approximately 9 days after the injury.

The disease followed the course of a rapidly progressive generalized muscular weakness and great prostration, associated with dysphagia, dysphonia and inability to cough. Death was due to respiratory failure and bilateral lobular pneumonia. This case is of unusual interest, since the literature contains no previous reports of cases in which botulism occurred following Cl. botulinum infection of a wound. Despite the absence of previous reports, it would seem that botulism from this source might occur more frequently. The organism is ubiquitous in nature, a potential contaminant of every traumatic wound. Furthermore, its growth requirements for initiating an infection appear to be practically identical with these of Cl. tetani. Finally, botulism has been produced in experimental animals by the injection of heated spores, and investigators have demonstrated that the botulinus toxin may be absorbed from broken skin and fresh wounds.

The observations in this case are consistent with the findings in botulism. Severe cerebral edema is a feature that has not been previously commented on. The most reasonable explanation is that it is not a manifestation of the botulism per se but is a consequence of the respiratory failure and cerebral hypoxia. (Arch. Path., June '51, C. G. Thomas Jr., M. F. Keleher & A. P. McKee)

Note: Refer to "Clostridium Botulinum in a Fatal Wound Infection," JAMA 16 June '51, J. B. David et al)

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Observations on the Effect of Cortisone Acetate on Two Patients with Hepatic Disease

That the liver is intimately associated with the metabolism of many of the hormones of the body is well established. It has been assumed by many that hepatic damage results in an inability of the organ to metabolize certain hormones properly and that under such circumstances physiologic activity is altered. The purpose of this communication is to describe some results that were noted following the administration of cortisone acetate to 2 patients with hepatic parenchymal damage.

Patient S, who had primary biliary cirrhosis, received 100 mg. of cortisone acetate twice daily intramuscularly as a saline suspension of finely ground crystals containing 25 mg. per cc. for a period of 12 days. Patient G, who had serum hepatitis and cirrhosis, received 50 mg. of cortisone twice daily for one period of 14 days and for a second period of 5 days. The patients were maintained in the metabolic study unit of the Mayo Clinic, where balance data and other laboratory data were collected before, during, and after the periods of administration of cortisone.

It was found that the administration of cortisone acetate to a patient with severe serum hepatitis and to one with biliary cirrhosis with a marked hyperlipemia had no significant effect on the serum bilirubin, tests of hepatic function, the lipemia, the physical findings, or the course of the diseases. Metabolic data on the patient with biliary cirrhosis were likewise not very significant.

The excretion of 17-ketosteroids and corticosteroids in these 2 patients suggests that no more than the usual amount of cortisone escapes metabolism when hepatic function is impaired. However, with hepatic damage less of the administered cortisone is converted to the 17-ketosteroids which appear in the urine. (J. Lab. & Clinic. Med., June'51, H. R. Butt, M. W. Comfort, M. H. Power & H. L. Mason)

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Prenatal Multiple Immunization

Whooping cough and diphtheria remain the two most important preventable contagious diseases of infancy. During the first two years of life, the former disease is still the cause of more deaths than measles, diphtheria, poliomyelitis, and scarlet fever combined. By means of the Schick test and antibody titers a decline in diphtheria immunity in the past generation has been demonstrated. This has been further evidenced by the fact that numerous outbreaks and epidemics of the disease have been reported in different parts of the world, and a progressive increase in the case rates has occurred since 1945.

Immunologic study of a group of women revealed that 31 percent had protective pertussis antibodies prior to inoculation. Since these antibodies are transmitted from the pregnant mother to the baby, a small but definite proportion of babies may be born with some immunity against whooping cough. The great majority, however, have no protection against this disease.

Scadron and Cohen injected a group of pregnant women at 2-week intervals from the 6th to the 8th month of pregnancy with doses of pertussis vaccine totaling from 90 to 150 billion bacilli. Immunologic studies demonstrated that all developed high titers of immune bodies following such vaccination, and that these antibodies were regularly transmitted to the newborn babies in a high titer quantitatively of the same order.

Although the majority of adults have been shown to possess considerable quantities of neutralizing antibodies against the influenza virus, there has been little available data comparing influenza antibody levels of mothers and their infants. Rickard and Horsfall found that during the first 2 months of life, infants possess antibody levels almost identical with those of their mothers. During the 3d and 4th months, antibody levels decreased rapidly in infant serum, and from the 4th to the 16th months, very few infants possessed demonstrable concentrations of antibodies against this virus. Cohen and Schneck demonstrated that children under 2 years of age who were actively immunized against influenza did not respond with good antibody production.

The great susceptibility of adults and children to whooping cough, and the importance of this disease as a cause of infant mortality, the demonstrated decline in immunity to diphtheria among adults within the last generation (and a consequent decrease in newborn immunity) and the difficulty of immunizing children under 2 years of age against influenza if need be, suggested to the authors the advisability of protecting the newborn infant against these and additional diseases by the method of maternal immunization, but using multiple antigens instead of a single antigen.

When women were immunized in the last trimester of pregnancy with multiple vaccines, 80 percent or more of them responded with high titers of antibodies protecting against diphtheria, pertussis, tetanus and influenza. These protective titers were quantitatively passively transferred to the newborn babies in whom they persisted for a period of 3 months or more.

Reactions were more severe when the combined vaccines contained diphtheria toxoid than when they did not. There was less reaction to the alum-precipitated than to the fluid preparation. No adverse effects upon either mothers or babies have been encountered from inoculations given in the last trimester of pregnancy. The method of prenatal multiple immunization would seem to protect the newborn baby against the threat of diphtheria and pertussis, and if need be, influenza and tetanus during the first 3 months of life when effective active immunity cannot be established. Active immunization should follow at 3 to 4 months of age, when passive immunity has been lost, and when mechanisms for establishment of active immunity function more efficiently than at an earlier age. (J. Pediat., June '51, P. Cohen, H. Schneck & E. Dubow)

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Lichen Simplex Chronicus (Vidal) Treated Successfully with Podophyllin

This article reports the results of treatment with podophyllin (resin of podophyllum N. F.) in 7 cases of circumscribed neurodermatitis. The patients had been treated previously with little or no response to orthodox measures, including roentgen therapy. Although the series of cases is small, the response was sufficiently impressive to recommend the use of podophyllin as a treatment worthy of further trial.

The 7 cases were not consecutive. The patients were selected from a larger group treated since March 20, 1947, because they were observed for a sufficiently long period for careful evaluation of the results. There were good results in 5.

The advantages of podophyllin are as follows:

1. It appears to have been effective in reducing the lichenification.
2. Itching was quickly relieved.
3. The therapeutic benefits are apparently long lasting. In case 1 there was striking result but the patient did not come for follow-up. In case 2 there was no recurrence after 13 months; in case 3, none after 2 years; in case 4, none after 6 months, and in case 5, none after 5 months. There apparently had been no recurrence since the last examinations in cases 2 and 3, as the patients would have communicated with the author. In case 6 there was only a partial response and the patient in case 7 manifested a severe inflammation after application of 25 percent podophyllin salve.
4. Podophyllin treatments may be repeated without injury to the tissues.

No untoward reactions occurred in the first 6 cases, but the possible complications of podophyllin therapy due to sensitization, primary irritation from strong concentrations as in case 7 and corneal damage due to accidental contact with podophyllin must be borne in mind.

It is advisable, therefore, to begin treatment with a mild podophyllin ointment (of a strength of 0.25 percent according to the size, thickness and location of the lesions). Strengths up to 10 percent may later on be used for resistant cases, since patients appear to acquire a tolerance to stronger concentrations.

When the possible complications are kept in mind and the aforementioned precautions are observed, podophyllin is recommended for the treatment of circumscribed neurodermatitis. Considering that this pruritic disease has been so troublesome to the dermatologist that even so severe a treatment as injections of alcohol has been suggested by Pels and Ellis, this simple procedure offers great advantages.

A more rapid result may be expected if a mild podophyllin ointment (from 0.125 to 2 percent according to the individual case) were to be prescribed to be used by the patient at home concurrently with the use of the ointment in the office. Results in a large series of patients treated with podophyllin ointment at the Treatment Unit of the Skin and Cancer Hospital will be reported later. (Arch. Dermat. & Syph., June '51, J. Garb)

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Changes in the Total Circulating Eosinophile Count in Cyclotron Workers

Several workers have reported eosinophilia in response to x-ray and radium exposure. In 1942 Warren reported the blood findings in 4 cyclotron workers who were exposed while sanding a dee. These workers demonstrated an initial fall in white cell count followed by a gradual rise. Of the 3 differential counts reported in this group, 2 had eosinophilia of 4 percent and 5 percent.

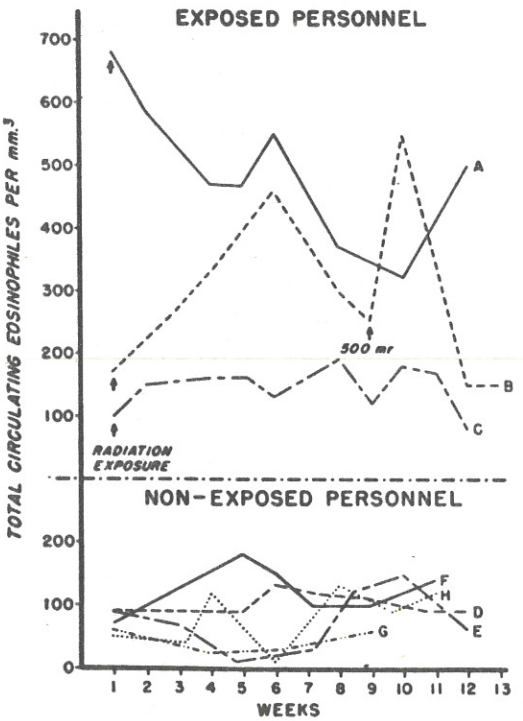

FIG. 1.

This report is based upon observation of 3 workers who received an indeterminate exposure while sanding the copper dees of a cyclotron. This exposure consisted of approximately 3 hours on each of 2 successive days. At the end of this period an exposure of 2,400 mr/hour was recorded at a distance of 12 in. from the surface being sanded. Although no pulmonary symptoms were noted following this exposure, inhalation of radioactive dust probably occurred, at least to some degree.

Red and white cell counts, hemoglobins and differential leukocyte counts at bimonthly intervals prior to this exposure failed to reveal any significant variations. Repetition of these procedures at weekly intervals after exposure revealed only a transient leukopenia which promptly returned to normal. Determination of the total circulating eosinophiles was made by the technique of Randolph. All blood counts were taken between 10:00 a.m. and 12:00 noon, without control of the antecedent diet or fluid intake. Fig. 1 records the variations in the total number of circulating eosinophiles in the exposed and nonexposed personnel. It is evident that workers A and B, who were exposed during the sanding operation, demonstrated a marked increase in the number of total circulating eosinophiles over the nonexposed personnel. Worker C, who apparently had as much exposure as A and B, did not demonstrate the marked eosinophilia shown by the others. It should be noted that worker A had a high eosinophile count immediately after exposure. Worker B evidenced a gradual increase and decrease in the total number of circulating eosinophiles until the 9th week, when in handling a hot target he received an estimated 500 mr of total-body irradiation. This was followed by a sharp rise in eosinophiles and an abrupt return to normal levels. Although total circulating eosinophile counts were not made to exposure, careful survey has failed to reveal any evidence of

hypersensitivity or parasitic infestation, and all counts have been entirely normal in the 6 months since the last count recorded in Fig. 1.

It is suggested that the total circulating eosinophile count may be a useful indication of exposure to radiation in individuals employed in x-ray, cyclotron and other laboratories with radiation hazards. (Science, June 15 '51, C. Moses & M. Platt)

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Treatment of Recurring Cystitis in the Female

In cases of recurring cystitis in the female, it is essential that the underlying pathological condition be recognized and treated. Since most bladder infections are secondary, a thorough search and adequate history may reveal clues as to etiology with subsequent treatment and relief. Urethral obstruction, contracted neck, small meatus, or general decreased urethral caliber are often found. Careful search may reveal infected periurethral and Skene's glands, caruncle, cervicitis, cervical erosion, trichomonas and vaginitis. Bimanual examination should rule out ovarian tumors, uterine abnormalities, cystocele, and occasionally uterine pessaries with resultant pressure and irritation.

Acutely there is marked frequency, nocturia, and urgency with severe terminal dysuria which may be associated with hematuria. The desire to void may be so severe as to constitute incontinence. The onset may be violently acute, or may insidiously increase over a period of weeks and months. The usual complaint is a dull suprapubic ache radiating to the thighs, hips, sacroiliac and lumbo-sacral area. Hematuria, often present, will usually cause the patient to seek immediate aid.

In the chronic type, there is distressing frequency, perineal and vaginal pain, and suprapubic discomfort relieved by emptying the bladder.

A careful history should be obtained for childhood urinary difficulties, previous attacks, bowel habits and possible allergies. It is most important to obtain a history of the force of stream, dribbling, straining and interruption of the stream. History of repeated sore throat, sinusitis, and upper respiratory infections should be obtained; the relationship between upper respiratory infection and cystitis has been repeatedly noted.

During an acute attack, a physical examination is performed and a catheterized urine is checked for infection and stained. A careful bimanual and speculum examination is performed, and vaginal smears are checked for Trichomonas in every case.

The acutely infected patient is treated with bladder lavage consisting of 1/4 percent protargol. She is given antibiotics, placed on bed rest, warm douches twice daily, fluids of 2,000 cc. daily and a bland diet. No condiments or alcoholic drinks are allowed. A culture of urine is obtained before any medication is given. She is also instructed to take sitz baths 2 times daily.

When the acute episode subsides, a residual urine test is run. Intravenous pyelograms are performed to rule out hydronephrosis, calculi and other

pathology which may be a factor in producing repeated exacerbations. Following pyelography, a cystoscopy is performed with a panendoscope and No. 16 BB cystoscope under 4 percent intracaine anesthesia. If retrograde pyelograms are warranted, they are done at a subsequent time.

Any pathology noted is carefully written on a cystoscopic chart as a further guide to treatment. The bladder is thoroughly inspected for cysts, calculi, tumors, tuberculosis and very carefully for Hunner's ulcer. Examination of the urethra is most important; granulations, contractures, diverticuli and polyps are particularly looked for. The meatus is carefully observed for narrowing, eversion and caruncle. Any granulations are treated with a light fulgurating current. This must be superficial as deep coagulation will produce distressing scarring and intense pain. The fulguration is followed by gentle dilatations once weekly for 6 to 8 weeks, beginning with No. 20 F sound and increasing to No. 30 F sound.

Polyps of the urethra are a cause of urinary frequency associated with a negative urine, and may often be missed, if a right angle lens is used. A thorough inspection of the urethra with a panendoscope will without difficulty clear up obscure etiology of frequency and urgency in many cases. Polyps may be associated with all types of lesions, particularly with inflammatory conditions of the upper or lower tract, and bladder neck contracture. Polyps are fulgurated in the hospital following sufficient dilatation to No. 30 F sound. Following fulguration, a No. 18 5 cc. Foley is inserted as a retention catheter for 24 hours. Dilatations are carried out every 5 days for 8 weeks.

In those cases of frequency, urgency, and dysuria without pyuria, a similar routine is established. A culture is taken on every new case. Apyuric cases with frequency give the greatest difficulty, and are treated with gentle urethral dilatation with silver nitrate irrigations in increasing strength and fulguration only if there are granulations, polyps, or cysts. Attention is directed to the urethral meatus for stricture. This is incised if present with a curved blade under 1 percent novocain. If the urethra does not admit a No. 20 F sound easily, it is considered to be abnormally narrowed. Dilatation is carried out beginning with No. 20 F sound very gently, increasing by 2 sizes within 5 days. This is carried out to a No. 32 F sound. Treatment should be gradual and gentle. Dilatation is decreased in intervals following 8 weeks of treatment, following which these patients are seen once every 2 to 3 months.

Many cases of frequency in elderly individuals are seen,with no demonstrable pathology except atrophic changes in the vagina and cervix. Important information is obtained with smears of the urethra and vagina. The urethra and vaginal epithelium is gently denuded by rolling action via a cotton applicator, the smear placed on a glass slide, and placed upside down over a bottle of Lugol's solution, and allowed to remain 20 minutes. Microscopic examination enables one to see the staining qualities and cell structure. If there is a mahogany stain with fairly normal shape, any relief with estrogens is usually not expected; however, with little staining and atrophic cell changes, estrogens often induce spectacular results. Also, stilbesterol suppositories, 5 mg. daily for 3 weeks are sufficient to cause improvement in both the clinical and histological picture. Allergic phenomenona produce frequency and cystitis. There

is no doubt that certain foods and beverages will cause frequency, but on the whole, treatment of recurring apyuria cystitis has been rather disappointing when benadryl or other antihistaminics were used. (Urol. & Cutan. Rev., June '51, M. F. Brodkin)

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Argument For Bilateral Mastectomy

The practical importance of the genesis of multiple primary cancers in breasts has been commonly ignored and the frequency with which several foci of genesis occur in one or both breasts has only recently been appreciated. It is now known that there is an increased liability for patients to develop cancer in the remaining breast, following radical mastectomy, as compared with the percentage risk obtaining for other women with intact breasts and of the same age. The author is now called upon for surgical treatment of cancer in the residual breast in more and more cases.

This apparently increased frequency of bilateral mammary cancer arises from the fact that women apply for treatment at a much earlier stage in the development of their cancers, thus decreasing the incidence of axillary metastases on the whole in most communities. With this higher rate of curability, a greater proportion of women live for indefinite periods after radical mastectomy. With each passing year of survival, the latent period for unsuspected incipient cancers in the opposite breast is shortened. In other words, these women live long enough for the cancers in the fellow breast to become manifest and detected. On the average, about 7.5 percent of patients with mammary cancer are reported to have later involvement in the opposite breast, and in those patients with recurrent cancer, 10 percent have been reported to develop the disease in the second breast. It is probable that this percentage would be considerably higher if the cure rate following the initial operation were better. As a prophylactic measure, an improvement of 7.5 percent in the cure rate of breast cancer would be a worth-while accomplishment, expecially if the principle of bilateral mastectomy were universally adopted.

The same etiological factors (genetic and hormonal) influential in the development of the original cancer of one breast are conceivably active in the opposite breast, except that local conditions in one breast may not be duplicated in the other. Both breasts are similarly influenced and stimulated by the cyclic changes consequent to the menses, pregnancy and lactation. The breasts together should be considered as an anatomic system rather than as separate, unrelated organs.

Cancer in the second breast may be of independent origin or may be secondary to the original cancer by crossed metastases, especially when this cancer occurs in the medial segment. Gross and microscopic study of the second cancer may enable the pathologist to identify it as cancer de novo, particularly if the lesions in the right and left breasts are of dissimilar clinicopathologic types. If the second cancer proves to be metastatic, as it does in some instances, the argument for an initial bilateral mastectomy is all the more valid. Bilateral mammary cancers sometimes make their appearance simultaneously Recently,

the author operated on 2 patients, each of whom had bilateral radical mastectomies for independent primary bilateral cancers. Even when one breast is removed for proved cancer, knowledge of the carcinogenesis of human mammary cancer is not complete or accurate enough to permit one to remove this influence from the remaining breast. It is more than likely that the cancer-inducing damage has been already done.

In cases of bilateral mammary cancer occurring at disparate times, it has been well known that the longer the interval before the clinical appearance of the cancer in the second breast, the better the prognosis. An explanation of this general rule is difficult to conceive; the longer interval could render less likely the possibility of the second lesions being metastatic rather than the more favorable independent primary cancer, or it might indicate that a minute carcinoma in situ occurring in the remaining breast might require a long latent period to become clinically demonstrable cancer.

When an apparently normal breast has been removed in conjunction with a cancerous opposite breast, gross and microscopic sectioning of the tissues has occasionally revealed an unsuspected focus of precancerous changes or early cancer in the second breast. No one knows how much time on the average is required for a mammary carcinoma in situ to develop to the clinical stage of cancer.

The operation of bilateral mastectomy for unilateral cancer consists of a radical mastectomy on the involved side, including the conventional removal of the pectoral muscles and the wide subcutaneous, fascial and axillary dissection, together with a simple mastectomy for the opposite breast, the whole procedure being done in continuity through a Stewart transverse incision.

The average woman with intact mammary glands believes that two breasts are better than one and one breast is better than none. Except for possible sexual enhancement, there is no valid excuse for retention of the opposite breast if one has become cancerous. It remains largely a nonfunctioning organ and would never be used for nursing a child except under extraordinary circumstances. It is difficult to prove statistically that pregnancy after mastectomy unfavorably influences the development of cancer in the residual breast, but isolated examples have definitely been seen. The sacrifice of a useless organ such as the remaining breast therefore does not make the patient a functional cripple as would the complete removal of other paired organs such as the testes.

It is an extraordinarily difficult task to secure consent for removal of the opposite normal breast at the same time as the planned radical mastectomy. The procedure is advised many more times than it is accomplished. After a unilateral radical mastectomy, many women admit that the removal of the opposite breast would have been cosmetically better, because of the ease and symmetry of dressing. Education of the public in this matter and a wider acceptance of the principle of bilateral mastectomy by surgeons would overcome this handicap. (Editorial, Surgery, June '51, G. T. Pack)

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Authorization Orders and Temporary Additional Duty Orders

Liaison with the Bureau of Naval Personnel is being jeopardized by the Bureau's failure to afford the Bureau of Naval Personnel at least 10 days for processing requests for authorization orders and temporary additional duty orders involving travel in the United States, its possessions or in occupied countries. These requests are being received in the Bureau of Medicine and Surgery as late as two days before travel is scheduled to begin. In some cases approval by the Secretary of the Navy is required.

Requests for temporary additional duty orders to foreign countries require as much advance notice as possible, but in no case should they reach this Bureau less than one month before travel is to commence. These cases often involve security clearance, State Department clearance, etc. This Bureau will take the action required by SECNAV Letter 50-563, NDB 31 July 1950. Inclusion of data required by this letter in requests will result in expediting the issuance of orders.

The attention of all officers initiating requests for temporary additional duty orders is also invited to BuPers-BuSandA Joint Letter 51-229, NDB 31 March 1951, which contains the instructions regarding their issuance. (Assistant Chief for Personnel & Professional Operations)

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Annual Preventive Medicine Reports

Recent inquiries from the field indicate that there is some confusion concerning the requirements for Sanitary Reports. Chapter 23 of the Manual of the Medical Department (Reports, Forms and Records), which has recently been distributed, outlines the requirements for the following Annual Preventive Medicine Reports:

Med-03 (Art 23-102) - Fleet or Forces Medical Officers
Med-011 (Art 23-108) - Ships having a representative of the Medical Department aboard
Med-019 (Art 23-112) - Stations having a representative of the Medical Department aboard.

This revision of the Manual supersedes BuMed Circular Letters 49-148 and 49-160. It will be noted that the titles of Sanitary Reports have been changed to Preventive Medicine Reports. These reports will only require specific information pertaining to Preventive Medicine standards and practices and special problems which will be outlined in detail in a circular letter to be promulgated at a later date. Attention is invited to the recording of diarrheal diseases as required by Article 23-122(5), Manual of the Medical Department. This information will be included in the Preventive Medicine Reports. (Preventive Med. Div., BuMed.)

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Requests from Navy Installations for Copies of Handbooks M-601, M-603 and M-604 in Connection with Navy Overseas Recruiting

BuMed Circular Letter 51-70 instructed medical officers in the method of procuring the various Civil Service Medical Handbooks needed for pre-employment examination of applicants for Civil Service jobs overseas. Since the publication of this Circular Letter, there have been a great number of inquiries to the Bureau concerning procurement of the Handbooks. Accordingly, portions of U. S. Civil Service Commission Letter 51-120 are herewith reprinted:

"The Navy Department is opening a Navy Overseas Recruiting and Employment office which will be located in San Francisco but which will recruit throughout the continental United States to employ civilian personnel for Navy activities in the Pacific Overseas Areas, except Alaska. Physical examinations of recruits will be made by Navy medical officers at the place of recruitment, and will be recorded on Standard Form 78. The Bureau of Medicine and Surgery, Navy Department, has instructed its medical officers at all continental shore stations to refer to the following Commission handbooks in connection with the necessary medical determinations: (a) Handbook M-601 - reference has been made to Part 1, Section 7, of this handbook for information on "Foreign Outpost Duty"; (b) Handbook M-603 - reference has been made to this handbook as being helpful in the evaluation of the physical qualifications of applicants since the handbook contains standards for various civil service positions; and (c) Handbook M-604 - reference has been made to this handbook as the most recent issuance by the Civil Service Commission regarding medical determinations for civil service positions.

"The most useful material contained in our medical handbooks for the medical determinations incident to the Navy's overseas recruiting consists of the material in Part 1, Section 7, of Handbook M-601 regarding foreign outpost duty, and the material in Part 2 of Handbook M-604, following the outline of Standard Form 78. In view of the fact that distribution of these handbooks has heretofore been limited to boards of U. S. civil service examiners, and since requests have already been received by some of the regional offices from Navy activity medical officers where no boards exist, the following instructions should be followed in complying with these requests:

a. "Handbook M-601: 50 copies of an excerpt of Part 1, Section 7, of this handbook covering "Foreign Outpost Duty" are being furnished to each region for use in filling the requests for this handbook. The requesting installations should be advised that M-601 is now out of print but that this portion has been reprinted for their use in connection with the overseas recruiting activity.

b. "Handbook M-603: Where regional offices have a sufficient supply of this handbook over their needs for normal distribution to boards of U. S. civil service examiners, requests for this handbook may be filled. Otherwise, the requesting installation should be advised that the supply of this handbook is exhausted and they should investigate the possibility of using copies of M-603 already available at their installations. In this connection only a small supply of Handbook M-603 is on hand in the central office, and no reprinting will be made

except as required by wider distribution of the handbook as new boards of U. S. civil service examiners are established. (Since Handbook X-120 instructed boards to use M-603 for referring to physical requirements, distribution of M-603 is now made to all boards whether or not they have a medical member.)

c. "Handbook M-604: Distribution of this handbook should be made upon request by the Navy installation. If additional supplies are needed they may be secured from the central office."

/s/ Executive Director, U. S. Civil Service Commission
(Preventive Med. Div., BuMed)

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List of Recent Reports Issued by Naval Medical Research Activity

Naval Medical Research Institute, NNMC, Bethesda, Maryland

Studies on the In Vitro Multiplication of Newcastle Disease Virus in Chicken Blood. I. Virus growth in relation to amount and kind of seed virus, time of incubation and number of cells, Project NM 005 048.11.01, 12 February 1951.

Studies on the In Vitro Multiplication of Newcastle Disease Virus in Chicken Blood. II. Cultivation of the Virus in Leucocyte Suspensions, Proj. NM 005 048.11.02, 25 Feb. 1951.

Studies of Radiogallium as a Diagnostic Agent in Bone Tumors, Project NM 007 081.06.09, 1 March 1951.

Use of Sensitivity Disks to Determine Susceptibility of Some Gram Negative Organisms to Antibiotics, Project NM 005 048.04.13, 12 March 1951.

Modifications in Design of Laboratory Vacuum Pumps, Memo Report 51-4, Project NM 000 018.07.04, 25 May 1951.

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From the Note Book

1. On 22 June 1951, the President laid the cornerstone of the Public Health Service's (National Institutes of Health) new Clinical Center for Medical Research at Bethesda, Maryland. (PIO release, FSA, PHS)

2. "Heart Puncture, Clinical and Electro-Cardiographic results, is further discussed in American Heart Journal, June 1951, by V. B. Nunez and E. R. Ponsdomenech. (Refer News Letter, Vol. 17, No. 12)

3. The similarities and dissimilarities in the epidemiology and disease characteristics of histoplasmosis, tuberculosis and coccidioidomycosis are discussed in J. A. M. A., 16 June 1951, by W. G. Beadenkopf and C. G. Loosli)

4. According to estimates from the American Association on Mental Deficiency a total of 7 percent of the population of the United States is afflicted with some degree of mental retardation because of brain impairment, during or after birth. ("Outside the Ivory Tower," Am. J. Surg., June '51)

5. The earliest authentic date of reports on the care and treatments given patients is about 4,500 B. C., at which time Thot, an Egyptian, wrote 36 books; 6 of these were of a medical nature. (Trustee, June '51, E. K. Huffman, R. R. L.)

6. An evaluation of the effect of dental foci of infection on health was prepared by various authors at the University of Michigan. (J. A. D. A., June '51)

7. "The Importance of Science in American Education" is discussed by E. A. Hauser in 8 June 1951 Science.

8. The Medical Sciences Information Exchange was established on 1 July 1950 in the Division of Medical Sciences, National Research Council, to act as a clearing house for medical research in progress supported by grants and contracts. Organizations and individuals interested in cooperating with the Exchange are invited to address inquiries to the Medical Sciences Information Exchange, NRC Division of Medical Sciences, Room 1113, Dupont Circle Building, Washington 6, D. C. (Science, 18 May '51, S. L. Deignan)

9. "Studies on the Influence of Vitamin A in Certain Types of Impaired Hearing" appears in A. M. A. Archives of Otolaryngology, May '51, M. J. Lobel.

10. "Primary Carcinoma of the Female Urethra with Metastases" appears in the American Journal of Surgery, June 1951, J. S. Eisenstaedt.

11. Hedwig S. Kuhn, M. D., of Hammond, Indiana, an eminently qualified authority on the subject of industrial ophthalmology, conducted a symposium on industrial ophthalmology on 22 June 1951 at the USN School of Aviation Medicine.

12. Supplies of steel, cooper and aluminum to provide for essential school, college, library, hospital and health facility construction have been authorized for delivery in the 3d quarter of 1951 under the Controlled Materials Plan. (DPA and FSA, 11 June '51)

13. "Aging," a new bulletin dealing with problems arising from the aging of our population, is being issued. The bulletin represents an experiment in supplying a clearinghouse of information in the aging field, as explained by the Federal Security Administration. (FSA, June '51)

14. "Nothing perhaps, brings out the best qualities in a mature surgeon more than the decision to leave well enough alone." (Brit. M. J., Feb. '50, A. Kennedy, quoted in GP, June '51)

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Selected Research Reports

Use of Sensitivity Disks to Determine Susceptibility of Some Gram Negative Organisms to Antibiotics: By the use of a rapid disk sensitivity test, it was found that 10 strains of Shigella were most susceptible to chloromycetin, somewhat less to terramycin, and showed negative to moderate susceptibility to dihydrostreptomycin, penicillin, and bacitracin. A strain of Proteus morganii was equivalently susceptible to both chloromycetin and terramycin, moderately susceptible to dihydrostreptomycin, and completely resistant to bacitracin and penicillin. (Project NM 005 048.04.13, NMRI, NNMC, Bethesda, Md.)

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Composition and Effect of Vapors Emanating From Insulated Electrical Equipment Under Conditions of Simulated Submarine Operation: Three electric motors, one insulated with "Harvel" 612 C phenolic type resin, the other two insulated with Teflon, a fluorocarbon polymer, were tested under conditions simulating submarine operation, i.e., 96 hours of continuous operation, at temperatures up to, and including a burn-out above 300° C., in a closed chamber without replenishment of air, and with a horse power to volume ratio equal to that found in submarines. The chamber air was analyzed at 24-hour intervals for oxygen, carbon dioxide and carbon monoxide. In the "Harvel" test analyses were also carried out for phenol, formaldehyde and ammonia, whereas for the Teflon test, additional measurements were done only for fluoride. Air and motor temperatures were continuously recorded. The extent of CO uptake by the blood was directly measured for rats and indirectly calculated for man (as a submarine crew member).

On the basis of the test data, the following evaluation of these motor performances, from the standpoint of medical acceptability, may be made:

(a) At insulation temperature in excess of 150° C. maintained for periods of 96 hours, CO is produced by "Harvel" insulated motors, in concentrations injurious to health.

(b) Insulation temperatures in excess of 250° C. maintained under similar conditions of operation for Teflon insulated motors, do not constitute a health hazard in respect to CO production. However, the possibility of injury from fluorine-containing gases, especially at 250 C., or above, is not ruled out by these tests, and no final or unequivocal conclusion as to the medical acceptability of this equipment operating under these conditions, is possible at this time. (Project NM 004 005.02.01, NMRI, NNMC, Bethesda, Md.)

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The Relative Susceptibilities of the Commonly-Used Laboratory Mammals to Infection by Schistosoma mansoni: Eight species of animals have been studied as laboratory hosts for a strain of Schistosoma mansoni from Puerto Rico. Golden hamsters, albino mice and cotton rats have been judged satisfactory hosts for the maintenance of the parasite in the laboratory, providing numerous well-developed adult worms and passing viable ova in feces. Mice are especially recommended for chemotherapeutic studies because of the similarity of the pathology observed in them to that in man. Among these hosts, the parasites are most easily recovered from albino mice; white mice and hamsters are most easily cared for. Host fatalities are fewest in cotton rats.

Cats, guinea pigs, rabbits, albino rats and dogs are unfavorable in one or more considerations: cats and rabbits, in that the parasites were difficult to recover manually, although they were large and well-developed; guinea pigs, rabbits and albino rats, in that the proportion of cercariae maturing in them was low, many rats effecting "self-cures"; dogs, in that they resisted infection completely. In none of these hosts, were ova found in fecal specimens.

Resistant hosts are indicated as valuable for studies of an immunological nature including investigation of the mechanisms of their resistance. (Project 005.048.02.25, NMRI, NNMC, Bethesda, Md.)

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BUMED CIRCULAR LETTER 51-90 12 June 1951

From: Chief, Bureau of Medicine and Surgery
To: All BUMED Management Controlled Activities

Subj: Ungraded employees; periodic and administrative pay increases and inhiring rates

Ref: (a) Dept. cir. ltr. OIR 270:glp of 23 May 1951, CPL&D-51-72
(b) Dept. cir. ltr. OIR 100:emm of 24 May 1951, CPL&D-51-75

1. Reference (a) promulgated policies and procedures dealing with the application of the four-step rate plan for ungraded employees within the Navy Department. By reference (b) the Under Secretary of the Navy requested that the Chiefs of Bureaus and Offices furnish their management controlled activities with the following supplemental and background information concerning the administration of the new four-step plan:

(1) Prior to 1 January 1951 the Navy was on a three-step wage plan, the intermediate step of which was set, as closely as the public interest permitted, at the average level paid by industry in the labor market for comparable skills under comparable conditions of employment. On 1 January 1951, the Navy, in accordance with the Department of Defense policy, adopted a four-step wage plan in which the second step was set in accordance with the principles formerly governing the intermediate step of the three-step plan.

(2) In accordance with both the old and the new wage plans, the entering rate was set at a differential below the so-called "going rate" in industry. The reason for this is that it is not expected that a new employee will be able to produce at the beginning of his employment at a rate which would justify the "going rate." Some of the comments received on reference (a) criticized the 10% limitation on new hires at above the entering rate. From time to time, spokesmen for industry have alleged that naval activities, taking advantage of the latitude permitted individual commanders, have engaged in the practice of wholesale inhiring at the second and third steps in order to "pirate" labor and have thereby violated the spirit of the basic statute governing the fixing of Navy wages. Regardless of the merits or demerits of such claims, they are very difficult to disprove either in general or in specific instances. It is believed that the 10% rule accords to activities the necessary flexibility to carry out their essential recruiting operations.

(3) Under the old plan the new employee was advanced to the "going rate" at the end of twelve months; under the new plan, in general, the new employee will be advanced to the "going rate" at the end of six months, it being considered that in that space of time, if the activity's orientation program is

sound, the employee's production will justify the higher rate.

(4) Under the old plan after twelve months in Step Two, the employee was automatically promoted to the maximum rate; under the new plan the employee may be advanced to Step Three after twelve months' service in Step Two if his performance is above average and his conduct is satisfactory. Under the new plan the above-average employee will attain the equivalent of the old maximum six months sooner than he would under the old plan. Under any circumstances he will attain this level as soon as he would under the old plan unless his performance and/or conduct is clearly below par.

(5) From the above it is apparent that the Navy, in adopting the new four-step plan, has accorded considerable new advantages to its employees. The old maximum rate and the new third step provide the employee with an incentive for remaining on the Navy payroll for, on the average, the employee who leaves must do so at a financial sacrifice. It should be noted, however, that the strongest incentive for employees to remain on the payroll lies not in wages but in other employment conditions.

(6) The new four-step plan provides an additional higher step to which the most deserving employees may be promoted. In reference (b) the greatest possible administrative latitude has been given to commanding officers to determine which of their employees are deserving of this pay level. Fear has been expressed concerning possible administrative difficulties in the operation of this new pay plan with the administrative discretion delegated to commanding officers. On the other hand, Army and Air Force activities have operated for many years on a merit plan for their two top steps, and the Army and Air Force report no administrative difficulties. It will, of course, be necessary for commanding officers to so administer the plan that charges of favoritism cannot have sound basis.

2. In connection with items (4) and (6) above, Medical Department activities should make the recommendations and justifications for administrative pay increases (both from step 2 to step 3 and from step 3 to step 4) a part of the individual employee's personnel folder.

3. By its intent, the coverage of Section 4b(2) of reference (a) leaves open the question of the waiting period for advancement to the fourth step of Group IVa employees in the Laundry Workers and Commissary Services. Therefore no action placing these employees in step four should be taken by the activity until further clarification of Section 4b(2) is promulgated by the Office of Industrial Relations.

4. All of the foregoing is of concern, of course, only to those BUMED management controlled activities that utilize or will utilize ungraded (non-IVb) employees.

H. L. Pugh

Circular Letter 51-90 will not be printed in the Navy Department Bulletin.

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BUMED CIRCULAR LETTER 51-91 18 June 1951

From: Chief, Bureau of Medicine and Surgery
To: Commandants, All Naval Districts and River Commands, CLUSA
All Naval Hospitals, CLUSA
All Naval and Marine Corps Stations Having Medical Department Personnel Attached, CLUSA

Subj: Active duty patients transferred to Veterans Administration Hospitals; reporting of

Ref: (a) BuMed C/L 51-69 (Joint BUMED-BUPERS-MARCORPS ltr) NDB 51-311 of 30 April 1951
(b) Chapter 16, ManMedDept
(c) Instructions Governing NAVMED-F, (NAVMED-P-1313)
(d) Article 20-7, ManMedDept
(e) BuMed C/L 50-142 of 20 Dec 1950

1. Reference (a) provides for the transfer of selected categories of Navy and Marine Corps patients to hospitals of the Veterans Administration for continuation of treatment while on the active list. It further provides for the administration of Navy patients so transferred by commandants of naval districts or naval activities to which commandants may delegate administrative functions, and for administration of Marine Corps patients by activities designated by the Commandant of the Marine Corps.

2. Activities responsible for administration of patients transferred to Veterans Administration hospitals in accordance with reference (a) shall be responsible for maintenance and closing out of Health Records, and submission of Individual Statistical Report of Patient (NAVMED-F), Beds and Patients Report (DD Form 443), Morbidity Report (DD Form 442), and NavMed Form U covering these patients.

3. Reporting instructions for the medical facility transferring the patient.-

a. Health Record.-The closing entry shall include the statement "Transferred for further treatment to_____ (VA Hospital); and to _____ (Navy or Marine activity) for administration." Disposition shall be shown as "T" (TRANSFERRED).

b. NAVMED-F.- Not required incident to disposition "T" (TRANSFERRED).

c. Beds and Patients Report (DD Form 443).- Dispose of patients on line 9, "Transferred to Navy". Under "Remarks", show (1) the number of patients, included on line 9, who were transferred to Veterans Administration facilities in accordance with reference (a); (2) location of Veterans Administration hospital to which transferred; and (3) the Navy or Marine Corps activity to which records were transferred.

d. Morbidity Report (DD Form 442).-Dispose of patients in column J of Part II as transferred, and in column E of Part III.

e. NavMed Form U.- At the time of the patients transfer, submit NavMed Form U (reference (d)) marked "preliminary", showing date of admission to the Veterans Administration hospital, or the scheduled date of admission if the actual date is uncertain.

4. Reporting instructions for activities responsible for administration of patients transferred to Veterans Administration hospitals.- Patients in Veterans Administration hospitals for whom an activity is assigned administrative responsibility are considered to be on the sick list of that activity:

a. Health Records shall be processed as prescribed in reference (b).

b. NAVMED-F shall be submitted as prescribed in reference (c).

c. Beds and Patients Report. (DD Form 443).- Patients considered herein shall be excluded from the Beds and Patients Reports for "all patients" and for "battle casualties only": they shall be reported on a separate copy of DD Form 443, utilizing lines 1 through 21 and line 27 of the form. In the heading, under "This Report Covers", place an "X" in the third box and write in "BUMED CL-51-69". In the remarks section identify the Veterans Administration hospital treating the patients. Activities which have administrative responsibility for patients in Veterans Administration hospitals, but are not otherwise required to submit DD Form 443, shall submit DD Form 443 covering "BUMED CL 51-69" as of midnight the last day of each month. Others shall submit DD Form 443 covering "BUMED CL 51-69" on the same schedule (weekly or monthly) as they submit DD Form 443 covering "all patients".

d. Morbidity Report (DD Form 442).- Patients considered herein shall be excluded from the regularly required morbidity report; they shall be reported monthly on a separate copy of DD Form 442, identified on line 1, Part I, as "BUMED CL 51-69". Sick days shall be reported on line 2; the remaining spaces in Parts I and II shall be left blank; applicable entries shall be made in Part III of the report.

e. NavMed Form U.- When the patient is separated from the active list, or when hospitalization at the Veterans Administration hospital is terminated

by transfer, death, desertion, or return to duty, NavMed Form U shall be submitted, marked "supplementary", showing the last date of hospitalization in active duty status reference (d).

5. The above reporting instructions do not apply to patients transferred to Veterans Administration Hospitals under orders involving discharge or retirement upon arrival at the Veterans Administration facility, as provided in reference (e).

H. L. Pugh

The above letter will not be printed in the Navy Department Bulletin.

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BUMED CIRCULAR LETTER 51-92 18 June 1951

From: Chief, Bureau of Medicine and Surgery

To: All Ships and Stations

Subj: Hospitalization rates for fiscal year 1952

Ref: (a) BUMED Cir Ltr 50-65
(b) ALNAV 51-51
(c) BUMED Cir Ltr 50-67
(d) BUSANDA Manual, par. 53225
(e) BUMED Cir Ltr 51-26

1. Reference (a) is canceled effective 1 July 1951.

2. During the fiscal year 1952, the per diem rates to be charged and collected locally for in-patient medical care furnished certain supernumerary patients in naval hospitals, hospital ships, infirmaries, and dispensaries are as follows:

a. Civilians, Humanitarian, Nonindigent
In United States - - - - - - - - - - $12.25
Outside United States - - - - - - - - 5.00

b. Dependents of Military Personnel - - 1.75

3. The value of the hospital ration for fiscal year 1952 has been promulgated by reference (b).

4. Current instructions applicable to collection, deposit and accounting procedures are as follows:

a. Naval hospitals: References (c) and (d)

b. Hospital ships: References (c), (d) and (e)

c. Infirmaries and dispensaries: Reference (d)

5. Naval hospitals and hospital ships shall report the "Status of Local Collections" under Section "G" of the NAVMED-36, Ration Record. Infirmaries and dispensaries shall submit monthly NAVMED-1316, Local Collections for In-Patient Medical Care Furnished, Report of.

H. L. Pugh

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BUMED CIRCULAR LETTER 51-93 18 June 1951

From: Chief, Bureau of Medicine and Surgery
To: All Ships and Stations

Subj: Radiological Safety Regulations, Revised 1951, NavMed P-1325

Ref: (a) OpNav Rest Ltr Op-602/cmf Ser 21P602 dtd 27 Aug 1946
(b) BuShips-BuMed Conf SpdLtr Ser 1381 dtd 24 Sept 1946
(c) BuShips-BuMed Conf Disp 141550Z of Oct 1946
(d) BuShips-BuMed Rest Spd Ltr All/Crossroads/S99-2 dtd 2 Nov 1946
(e) BuShips-BuMed Rest Ltr BuShips Code 180A All/Crossroads/C-S (99)-0 dtd 22 Nov 1946
(f) BuMed RestLtr EN10/RadSafe P2-4 dtd 31 Jan 1947
(g) BuMed Conf Disp 071046Z of Mar 1947
(h) BuMed Conf Ltr BuMed-74 RadSafe/P2-5 dtd 21 Apr 1947
(i) BuMed Ltr BuMed-74-ceg L21 Ser 5018 dtd 20 May 1947
(j) BuMed Conf Ltr BuMed-74 RadSafe Ser 05017 dtd 20 May 1947
(k) BuMed Conf Ltr BuMed-74-S-mlm L-7(4)A9 Ser 05029 dtd 15 Sept 1947
(l) BuMed Circular Letter No. 48-10 dtd 23 Jan 1948
(m) BuMed Circular Letter No. 48-134 dtd 29 Nov 1948
(n) BuMed Circular Letter No. 48-146 dtd 16 Dec 1948
(o) BuMed Circular Letter No. 50-102 dtd 14 Sept 1950; N. D. Bul of 15 Sept 1950, 50-725
(p) BuMed Circular Letter No. 51-5 dtd 10 Jan 1951; N. D. Bul of 15 Jan 1951, 51-25
(q) Appendix "A" to Manual of Radiological Safety, NavMed P-1283

1. References (g), (h), (j) and (k) are hereby canceled as having served their purpose; references (b), (c), (d) and (e) are being canceled concurrently by

Bureau of Ships; and references (f), (i), (l), (m), (n), (o), (p) and (q) are canceled and superseded by the revised edition (1951) of Radiological Safety Regulations, NavMed P-1325.

2. By reference (a) the Bureau of Medicine and Surgery is charged with the responsibility for formulating radiological safety regulations and for establishing maximum permissible exposures applicable to the radiological safety program of the Navy. Accordingly, the revised edition of Radiological Safety Regulations, NavMed P-1325, is being distributed to the Naval Establishment.

3. Attention is invited to Article 5-9 of the revised Radiological Safety Regulations, NavMed P-1325, regarding the submission of reports on all personnel exposed to ionizing radiation.

H. L. Pugh

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BUMED CIRCULAR LETTER 51-94 19 June 1951

From: Chief, Bureau of Medicine and Surgery
To: All Medical Department Activities and Facilities

Subj: Dental Examinations in Individual Dental Records

Ref: (a) BuMed Circular Letter No. 50-144
(b) BuMed Circular Letter No. 51-84

1. Effective immediately:

(a) An initial dental examination shall be recorded in the individual Dental Record, NavMed-84, within 60 days following entry of a person into the Navy or Marine Corps.

(b) The initial dental examination and the separation examination shall be the Type 2, Routine Examination, established by reference (a).

(c) The posterior bite-wing roentgenogram required by the Type 2, Routine Examination, shall be the standard 1-1/16 by 2-1/8 inches, bite-wing films.

2. The authority for these requirements is contained in a memorandum from the Armed Forces Medical Policy Council of the Office of the Secretary of Defense, dated 21 May 1951, to the Surgeons General of the Department of the Army, Navy and Air Force.

H. L. Pugh

Circular Letter 51-94 will not be printed in the Navy Department Bulletin.

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BUMED CIRCULAR LETTER 51-95 19 June 1951

From: Chief, Bureau of Medicine and Surgery
To: All ships and stations having a dental officer aboard

Subj: DD FORM 477, 1 MAY 51, DENTAL SERVICE REPORT

Ref: (a) Article 23-9, Manual Medical Department

Encl: (1) Initial supply of DD FORM 477, 1 MAY 51, DENTAL SERVICE REPORT

This letter, which will not be printed in the Navy Department Bulletin, contains information and detailed instructions for the preparation and submission of DD FORM 477. This form standardizes the Dental Service reporting by the Army, Navy and Air Force. DD FORM 477 replaces NavMed-K (Report of Dental Operations and Treatments). NavMed-K becomes obsolete after submission for the month of July 1951. An initial supply of the new form is enclosed with the circular letter. Additional quantities of the new form should be obtained from district publications and printing offices, as required.

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BUMED CIRCULAR LETTER 51-96 22 June 1951

From: Chief, Bureau of Medicine and Surgery
To: All Medical Activities and Facilities

Subj: Object and Subobject Classification of Medical Department Appropriational Estimates, Obligations, and Expenditures.

Ref: (a) BuMed C/L 45-178 (NAVMED-855)
(b) BuMed C/L 45-211
(c) BuMed C/L 48-39
(d) BuMed C/L 49-102
(e) BuMed C/L 49-117
(f) Budget-Treasury Regulation No. 1, Revised, Relating to Apportionments and Reports on Status of Appropriations, issued 14 September 1950 by the Bureau of the Budget and the Treasury Department
(g) Chapter 4, Volume 7, BuSandA Manual

Encl: (1) Chart showing object and subobject classification of appropriational estimates, obligations, and expenditures under the appropriation, Medical Care, Navy.

This circular letter, which will not be printed in the Navy Department Bulletin, contains detailed information and instructions concerning Medical Department appropriational estimates, obligations and expenditures with object and subobject classification as an enclosure.

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BUMED CIRCULAR LETTER 51-97 26 June 1951

From: Chief, Bureau of Medicine and Surgery
To: National Naval Medical Center
Naval Hospitals (Continental)
Naval Medical Supply Depots

Subj: Industrial Relations Institute; schedule for first half of fiscal year 1952

Ref: (a) BuMed Circular Letter No. 50-119 dated 23 October 1950

1. Reference (a) announced the establishment of the Industrial Relations Institute to provide basic and refresher training in the field of industrial relations. The Bureau's announcement requested addressees to nominate their personnel officers for attendance at one of the Institutes during calendar year 1951, with preference being given to candidates located east of the Mississippi during January - June of 1951.

2. The Office of Industrial Relations has now announced the following schedule for the Institute for the first half of fiscal year 1952:

10-21 September 1951
8-19 October 1951
29 October - 9 November 1951
26 November - 7 December 1951
10-21 December 1951

Accordingly, the addressed activities that have not been represented at previous Institutes may nominate their personnel officers for attendance at one of the above sessions. Final notification of assignment will be made between 15 and 31 August by OIR.

3. Fifteen Medical Service Corps officers have attended the Institute to date. It is the consensus of those who have attended that the course has been extremely worthwhile. The Bureau desires, therefore, that attendance be arranged for

as many as possible of the Medical Service Corps officers who have responsibility for civilian personnel administration in medical activities.

H. L. Pugh

The above letter will not be printed in the Navy Department Bulletin.

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BUMED CIRCULAR LETTER 51-98 26 June 1951

From: Chief, Bureau of Medicine and Surgery
To: All Ships and Stations

Subj: BUMED circular letters; cancelation of several

1. The following BUMED circular letters are canceled for the reasons indicated:

Cir Ltr	NDB issue and No.	Reason
45-260		Replaced by NAVPERS-15085A.
49-55	Jan-Jun 1949, 49-357, p 79	Covered by article 23-121, ManMedDept.
49-148	Jul-Dec 1949, 49-812, p 122	Covered by articles 23-102, 23-108, and 23-112, ManMedDept. Specific instructions for preparation of preventive medicine reports will be promulgated later.
49-155	Jul-Dec 1949, 49-854, p 127	Canceled by BUMED Cir Ltr No. 51-8.
49-160		Same as for 49-148 above.
50-44		Served its purpose as a letter of cancelation.
50-75		Do.
50-114	15 Oct 1950, 50-812, p 15	Do.
50-115		Do.
50-127		Do.

Cir Ltr	NDB issue and No.	Reason
50-135		Do.
50-145		Do.
51-23		Do.
51-61		Do.

H. L. Pugh

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BUMED CIRCULAR LETTER 51-99

26 June 1951
Restricted

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NAVY DEPARTMENT
BUREAU OF MEDICINE AND SURGERY
WASHINGTON 25, D. C.

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